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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
SRIVASTAVA, KAILASH C

ART UNIT	PAPER NUMBER
1657	

NOTIFICATION DATE	DELIVERY MODE
03/05/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/517,311	KURODA ET AL.	
	Examiner	Art Unit	
	Kailash C. Srivastava	1657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) *4* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Response and Remarks filed 10 November 2008 to Office Action mailed 09 October 2008 is acknowledged and entered.

Claims Status

2. Claim 1-4 are pending.

Election/ Restriction

3. Election with traverse of Group I invention encompassing Claims 1-3 drawn to a method to screen for malt by assaying the activity of fatty acid hydroperoxide lyase is acknowledged and entered. The traversal is on the following ground (s):

(i) inventions in Groups I-II have dependency-dependent same technical features inter-relationship because Claim 4 depends from Claims 1-3 (See Remarks filed 11/10/2008, Page 2, Lines 11-14);

(ii) "in a lack of unity restriction, Examiner has the burden to explain "why each Group lacks unity with each other specifically describing unique features in each Group" because said "unique feature involves the technical relationship and it is the technical relationship that defines the contribution which each group taken as a whole makes over the prior art" (See Remarks filed 11/10/2008, Page 2, Lines 11-14);

(iii) Citing 37 C.F.R. §1.475(b) a further argument is presented, "while PCT Rules 13.1 and 13.2 are applicable, in an application containing claims to different categories of invention" said inventions "will be considered to have unity of invention if the claims are drawn to a product, process and use of said product" (See Remarks filed 11/10/2008, Page 3, Lines 6-11);

(iv) "the International Report did not" show a restriction and the Office should also not require a restriction (See Remarks filed 11/10/2008, Page 3, Lines 18-19); and

(v) "A search of all the Claims would not impose a serious burden on the Office (See Remarks filed 11/10/2008, Page 3, Lines 12-13).

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The inventions presented in Claims 1-3 are drawn to a method to "Screen malt", not to a product. The invention in Claim 4, however, is drawn to another method, not a product to "produce malt-based sparkling beverage". Thus, the two inventions are drawn to two different methods not to a product and use of said product as applicants assert (See Remarks filed 11/10/2008, Page 2, Lines 11-11) each having

different steps and a different end result. Said method in invention of Group I encompassing Claims 1-3 is to determine the activity of fatty acid hydroperoxide lyase , which is the key factor in determining the state/quality of malt is clearly shown not to be a contribution over the prior art of record (e.g., Olias et al. 1990. Fatty Acid Hydroperoxide Lyase in Germinating Soybean Seedlings. Journal of Agriculture and Food Chemistry, Volume 38, Number 3, Pages 624-630). Thus, 37 C.F.R. 475(b) is not applicable.

Please note the International Report was issued under the rules from PCT, whereas currently presented Claims 1-4 are being examined in a U.S. National stage Application, under 35 U.S.C. §371.

As to the burden on search, the burden lies not only in the search of U.S. patents, burden also lies in the search for literature and foreign patents and examination of the claim language and specification for compliance with the statutes concerning new matter, distinctness and scope of enablement. Clearly different searches and issues are involved with each group. Moreover, a reference that would anticipate the invention of one group would not necessarily anticipate or even make obvious another group. In addition, the search for each of the distinct inventions of Groups I-II is not co-extensive particularly with regard to the literature search. E.g., a search for the Claims in Group I invention would encompass the strategy for assay of the activity of fatty acid hydroperoxide lyase; while for Group II invention, the strategy would encompass the key words, e.g., brewing or sparkling wine or sparkling beverage. Finally, the condition for patentability is different in each case. Note specifically that for purposes of the initial restriction requirement, as pointed out above, it may be prima facie shown if the examiner shows by appropriate explanation either separate classification, separate status in the art, or a different field of search as defined in M.P.E.P. §808.02. As is stated in item 3 above and in the Office Action mailed 09 October 2008, Page 3, item 7; the examiner has clearly shown separate status in the art and separate field of search for inventions in groups I-II.

Examiner has fully and carefully considered, applicants' arguments files 10 November 2008 but does not find them persuasive because of the reasons of record on page 3, item 7 in Office Action mailed 09 October 2008. For these reasons, the restriction requirement is still deemed proper, is adhered to and is made FINAL.

Accordingly, Claim 4 is withdrawn from further consideration as being directed to a non-elected invention. See 37 C.F.R. §1.142(b) and M.P.E.P. §821.03.

4. Claims 1-3 are examined on merits.

Priority

5. Claim for foreign priority under 35 U.S.C. §119(a-d) to PCT/JP03/07887 filed 20 June 2003 is acknowledged.

Objection To Specification

6. The specification is objected to because Line one of first page of specification, in its present form does not properly cite the application priority data. It is requested that the first line of the first page of the specification appropriately indicate that the instant application Claims priority to PCT/JP03/07887 filed 20 June 2003.

7. 35 U.S.C. §112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms, which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. §112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: e.g., phrase, "aldehydes etc." at Page 7, lines 21-22. Said phrase does not define the meaning of "etc." Similar citations are noted at other places in the specification (e.g., Page 7, Line 22; Page 13, Lines 21-22) as currently presented. The examiner suggests that the applicants carefully revise the specification including the abstract to make the specification clearly comprehensible. Applicants are warned to be careful to not add any new matter while revising the application for corrections to eliminate inexact or verbose terms.

Examiner has not checked the entire specification to determine the presence of all possible minor inclarities. Applicants' cooperation is requested in correcting any errors/ clarifying any ambiguous phrases of which applicants may become aware in the specification. Applicants are warned to be careful to not add any new matter while revising the application for corrections to eliminate any verbose or incorrect terms/language.

Claim Rejections - 35 U.S.C. § 112

Second Paragraph

7. Following is a quotation of the second paragraph of 35 U.S.C. § 112:

> ***The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.***

8. Claims 1-3 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 1 as presently recited seem to be incomplete in the absence of a step encompassing accomplishment of the method of screening for malt as stated in the preamble of Claim 1, because the method is drawn to a single step of "evaluating" fatty acid hydroperoxide lyase activity (i.e., FAHPLA). While there is no specific rule or statutory requirement which specifically addresses the need for an accomplishing step in a process, or method, it is clear from the record and would be expected from conventional processes that if the step or each of the described steps to achieve the method are conducted in accordance with the described method of accomplishing the process, or method be incorporated in the method. IN this way, it is clear that the method is accomplished. Thus, claim 1 fails to particularly point out and distinctly claim the "complete" method to screen for malt through the described step in said Claim because the "accomplishing" step is missing from said claim. The metes and bounds of the claimed method are therefore not clearly established or delineated. Appropriate correction is respectfully required.

- Claims 1-3 as currently presented are unclear because the metes and bounds of the method steps are unclearly defined. The conditions (i.e., pH, temperature, substrates or products) for evaluating the claimed FAHHPLA are not defined in the Claim language. Appropriate correction is respectfully required.

- Claims 2-3 each lack sufficient antecedence basis because each of Claims 2-3 depend from Claim 1 which comprises a step of evaluating the activity of fatty acid hydroperoxide lyase. Said Claim 1 as currently presented does not describe evaluating a plurality of lyases as the language at line 6 of each of Claims 2-3 describes. Appropriate correction is respectfully required.

Claim Rejections - 35 USC §103

9. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> ***(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.***

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR §1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § *103*(c) and potential 35 U.S.C. § *102*(f) or (g) prior art under 35 U.S.C. § 103(a).

11. Claims 1-3 are rejected under 35 U.S.C. § 103(a) as obvious over combined teachings from Olìas as et al. (1990. Fatty Acid Hydroperoxide Lyase in Germinating Soybean Seedlings. Journal of Agriculture and Food Chemistry, Volume 38, Number 3, Pages 624-630) in view of Wikipedia (http://en.wikipedia.org/wiki/Enzyme_assay Printed 3/1/2009 and http://en.wikipedia.org/wiki/Malting printed 3/2/2009).

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Claims recite a method screen malt by evaluating fatty acid hydroperoxide lyase activity by measuring the amount of products obtained by hydrolysis of fatty acid hydroperoxide and or measuring the decreased amount of fatty acid hydroperoxides.

Regarding Claims 1-3, Olìas as et al., teach evaluating the activity of a fatty acid hydroperoxide lyase (i.e., FAHPLA), wherein said FAHPLA forms aldehydes hexanal and cis-3 hexanal during germination of soybean (Abstract Lines 1-9; Page 626, Column 1, Lines 3-25 below figure 2). Olìas as et

al., are silent regarding the malting or malt or reduction in the amounts of fatty acid hydroperoxide. However, malting is produced by sprouting or germinating cereal grains (see Wikipedia, Page 1, Lines 1-6). Furthermore, an enzyme activity may be determined either by the production of products of reaction (i.e., degradation or hydrolysis products), or by loss in the amount of substrate (See Wikipedia, Enzyme Assay, Page 1, Lines 35-36). Note Olìas as et al. teach measuring FAHPLA in sprouting soy beans which is a grain and Wikipedias teach that malting is enzyme activation during sprouting. Wikipedia further teaches that an enzyme activity is quantified as a function of either the products formed, or substrate quantity lost.

One having ordinary skill in the art at the time of claimed invention would have been motivated to modify Olìas as et al's teachings according to those from Wikipedia and Wikipedia enzyme assay; because Wikipedias teach that malting is a sprouting process and further the Wikipedia Enzyme assay teaches that that an enzyme activity is quantified as a function of either the products formed, or substrate quantity lost.

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify Olìas et al's teachings according to those from Wikipedia and Wikipedia enzyme assay; because Wikipedia and Wikipedia enzyme assay remedies the deficiency regarding malting and measurement of FAHPLA through quantifying substrate loss in Olìas as et al's teachings.

From the teachings of the cited references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

12. For the aforementioned reasons, no Claims are allowed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kailash C. Srivastava whose telephone number is (571) 272-0923. The examiner can normally be reached on Monday to Thursday from 7:30 A.M. to 6:00 P.M. (Eastern Standard or Daylight Savings Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Jon Weber can be reached at (571)-272-0925 Monday through Thursday 7:30 A.M. to 6:00 P.M. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding may be obtained from the Patent Application Information Retrieval (i.e., PAIR) system. Status information for the published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (i.e., EBC) at: (866)-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kailash C Srivastava/
Examiner, Art Unit 1657

Kailash C. Srivastava
Patent Examiner
Art Unit 1657
(571) 272-0923

02 March 2009

/Lisa J. Hobbs/
Primary Examiner, Art Unit 1657